

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB2004/050319A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H05K13/04 H05K13/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 H05K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 408 090 B1 (SALOMON WERNER ET AL) 18 June 2002 (2002-06-18) the whole document -----	1,4-9
A	US 4 978 224 A (KISHIMOTO SHIN ET AL) 18 December 1990 (1990-12-18) the whole document claim 1; figures 1,13,20,21 -----	1,8
A	US 2001/055069 A1 (HUDSON EDISON T) 27 December 2001 (2001-12-27) the whole document -----	1,8
A	US 4 941 256 A (CAPSON DAVID W ET AL) 17 July 1990 (1990-07-17) abstract; figure 3 claim 1; figures 1,13,20,21 -----	2,3
A	-----	1,8
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 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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- 'A' document defining the general state of the art which is not considered to be of particular relevance
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Date of the actual completion of the International search

14 December 2004

Date of mailing of the International search report

23/12/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 880 849 A (VAN DE VEN JOHANNES T A) 9 March 1999 (1999-03-09) cited in the application the whole document -----	1,8

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/050319

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
US 6408090	B1	18-06-2002	CN WO EP JP	1320363 T 0019800 A1 1118262 A1 2002526940 T		31-10-2001 06-04-2000 25-07-2001 20-08-2002
US 4978224	A	18-12-1990	JP JP JP JP JP	1018004 A 1018049 A 1088204 A 1161310 A 1165903 A		20-01-1989 20-01-1989 03-04-1989 26-06-1989 29-06-1989
US 2001055069	A1	27-12-2001	AU WO	4098801 A 0167831 A2		17-09-2001 13-09-2001
US 4941256	A	17-07-1990	CA	1285661 C		02-07-1991
US 5880849	A	09-03-1999	DE DE EP WO JP	69605103 D1 69605103 T2 0809926 A1 9722238 A1 11502311 T		16-12-1999 25-05-2000 03-12-1997 19-06-1997 23-02-1999